

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: sigcom@juno.com (Stephen M Smith)  
Subject: [4232] "free" parts II  
Message-ID: <19960915.053822.18223.0.sigcom@juno.com>

A recent post regarding auto radios and variable capacitors prompted this edition of "free" parts.

Do you remember when good quality, small air-variable capacitors were literally "a dime a dozen"? I do. When I was a kid, I never worried about where to get a capacitor for a vfo or transmitter tank or whatever I happened to be building at the time. Boy, have things changed. Oh, they're still available new alright. Just hold onto your wallet when you go to the local parts house to buy one. Of course there are some great mail order outfits available to us QRPers, but I like to scrounge and here is a great source for surplus, high quality variable capacitors: Old hybrid land mobile two-way radios. These units were state of the art in the late sixties and through the seventies, but these days they're just boat anchors. I'm referring to radios like the Motorola Motrac series and the G.E. MASTR Professional series. These radios used solid state receivers and partly solid state transmitters with tube drivers and finals. They were produced for "Low Band" (30-50 MHz), "High Band" (140-170 MHz) and "UHF" (450-470).

I recently stripped down a few of these old radios and got about a dozen nice caps. out of them. Of course, the higher capacitance value units will be found in the low band radios with the UHF radios providing the smaller values. These capacitors were made for rough, mobile environments and are well made. Most have slotted, screwdriver adjustment type shafts and some have 1/8" or 1/4" diameter shafts that are long enough to attach a small knob or coupling. The UHF Motrac I stripped out had several nice split-stator variables, although of fairly low capacitance. These radios also have other nice parts; trimmer caps., dipped mica caps. and other goodies that the QRP home brewer can use.

These days, most two-way radio shops consider these radios to be junk, primarily because of the increasing incidence of repair and the high cost of tubes. So, hit up your local mobile dealer or troll the swaps. More often than not, these old buggers can be picked up for nothing.

Happy scrounging and 73.....Steve, WB6TNL QRP-L #621

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: KB0PJE /5 <jdougher@wt.net>  
Subject: [4255] Anybody on 80 M these days?  
Message-ID: <323CC8EB.1A2@wt.net>

After reading a bit about EMPS, I've been dialing up 80M every day for the last 3 or 4 and have yet to hear 1 CW sig, QRP or QRO. Is there anyone ever on this band???

I hear plenty of 75 M SSB and various data carriers, and my antenna tunes up just fine. Even give a call or two each time with no luck. My "looking time" is typically late afternoons/early evening. And today, Sunday, I've been looking all day. Listening with IC-706 so it's not deaf ears, I don't think. Or is it just no activity down in Gulf/Texas??

So when and where is the activity on 80 (if there is any)?  
Any nets, etc.?  
Is 3.56 the QRP spot?

Thanks for any info.....  
KB0PJE /5  
Jack /Houston

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "Bill C." <wrc@tir.com>  
Subject: [4237] Atlas 180  
Message-ID: <323C58A0.6D73@tir.com>

Hi gang,

I have an old Atlas 180 in need of some TLC and mods. I need some schematics to guide this effort. Any suggestions or copies of scematics would be helpful.

73,

Bill KU8H

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: n4so@juno.com  
Subject: [4226] BD.EXE  
Message-ID: <19960915.091219.5199.6.N4S0@juno.com>

The complete information on oblate spheroids and distance calculations is found in QST magazine June 1993, page 96 and 97 and explains in detail the

problems in accuracy of distance calculating programs.

BD.EXE overcomes the inaccuracy problem and far surpasses methods that assume a simple spherical model of the Earth.

KEN BROWN  
QTH: MOBILE, AL  
QRP-L #622  
n4so@juno.com

s

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: qrp-l@fido261.qis.net (qrp-l)  
Subject: [4254] Call for Moderation  
Message-ID: <939\_9609151711@fido261.qis.net>

I'm not in favor of moderation for this list for the following reasons:

- A. The list seems to be one of the better-haved ones I've seen.
- B. If moderated, the through-out could be affected.
- C. The moderating job is no fun at all...I moderate several FIDO echoes, it's thankless, takes a lot of time...and can make you quite stuffy.

Thom LaCosta  
K3HRN  
thom@fido261.qis.net  
Our Business is Business

--

|Fidonet: qrp-l 1:261/1352  
|Internet: qrp-l@fido261.qis.net  
|Standard disclaimer: Take a Naugha to Lunch today YOU pay the bill!

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Dave Adams <adamsclan@netgate.net>  
Subject: [4264] Clarification on Bifilar toroids  
Message-ID: <323CBAEE.5BED@netgate.net>

Greetings! Clarification requested please!

The Cascade manual clearly states:

T1, t3-t6 are all 8-turn bifilar transformers on FT37-43 cores. Twist the two #26 wires (brown, green) at 8 twists per inch (use drill if you like).

I began to panic as I had not a clue as to what the manual was saying, but I remembered that I have been building up a rather useful library...so I grabbed W1FB's design notebook and figured out what a bifilar was...SO.....

Am I correct in assuming that they want me to twist the wire at 8 turns per inch (what kind of tolerance is there for that anyway?!?!) and then put 8 turns through the core? Any really useful hints about twisting the wire?

Tanks...

Dave

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: rhight@primenet.com (Roger Hightower)  
Subject: [4244] CMOS II/III Switches  
Message-ID: <199609151911.MAA20616@primenet.com>

I'm in the process of rebuilding my CMOS II into a Bencher cover, and found that the same momentary switches used for the KC-1 are great for any small enclosure. The Mouser part No. used to be 10PA018 or 10PA019 (one red, one black). I don't see that number in my latest catalog, but perhaps someone with the parts list for the KC2 can inform us. Requires only about a 5-6mm hole, so it's easy to line up six of these on a small enclosure.

72/73 de Roger AA7QY

NorCal 1099 CoQRP 176 QRP-L 62 G-QRP 9081 ARCI 8946 NE-QRP 383

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Ron Giuntini <rong@slip.net>  
Subject: [4230] CMOS III  
Message-ID: <E0v2JHq-0006mQ-00@mouse.slip.net>

I am awaiting CMOS III keyer, (also have a KC-2 waiting for construction). Anyway, I wonder what the folks here have successfully used for enclosures

and switches? I saw the QST article and there was a nice looking box made from PC board material but I think my efforts at that would result in a non linear enclosure.....What is a good RS part? And the 6 switches...Any advise? I have not decided where to put the KC-2 but I have an unbuilt Explorer II for 20M/ anybody put a KC-2 in an Explorer II?

Ron KB6GK  
NorCal #1718  
San Francisco

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: u1002895@warwick.net  
Subject: [4228] doctor dx  
Message-ID: <323C42FF.638A@warwick.net>

I was cleaning the shack, Packet around here has dried up so piled up all my c-64 stuff, monitors drives, spare 64's, and in the box of books and assorted goodies I spotted a Doctor DX cartridge I picked up at some hamfest.

Well one thing led to another and i soon was in a contest on the 64 with a straight key hooked in. figured out how to change bands and go up/down in freq, but is there something to do with an antenna? any other hints tips? Tnx, BTW I was operating qrp...ps anyone needing 64 stuff; there are 3 64's, 3 drives, digicom 64 packet modem, cables and all sorts of other odds and ends. If anyone has a need they are yours for shipping costs, except the two color monitors, which would probably be too much to ship.  
72 73 Jim kw3u...

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Brian Short <ke7gh@primenet.com>  
Subject: [4236] FW: CMOS III  
Message-ID: <01BBA322.4DA9A680@ip059.phx.primenet.com>

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From: Brian Short[SMTP:ke7gh@primenet.com]  
Sent: Sunday, September 15, 1996 4:14 PM  
Subject: RE: CMOS III

For the CMOS-III, Radio Shack sell a nice "plastic"

enclosure previously available from PacTec ~\$8, but worth it IMO and have had NO RF problems carefully constructed.

Radio Shack also sells some larger round mom contact n.o. switches. Careful, 6 barely fit on the top of enclosure, but will nicely if you measure carefully.

I used a very small AA battery holder from the local Battery Shoppe. Batteries are largest component, be careful to use some that fit, obviously.

ke7gh  
Brian Short  
ke7gh@amsat.org  
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ke7gh@contesting.com  
<http://www.primenet.com/~ke7gh>  
yaesu-request@contesting.com subscribe  
majordomo@primenet.com subscribe bitbucket

-----  
From: Ron Giuntini[SMTP:rong@slip.net]  
Sent: Sunday, September 15, 1996 4:39 PM  
Subject: CMOS III

I am awaiting CMOS III keyer, (also have a KC-2 waiting for construction). Anyway, I wonder what the folks here have successfully used for enclosures and switches? I saw the QST article and there was a nice looking box made from PC board material but I think my efforts at that would result in a non linear enclosure.....What is a good RS part? And the 6 switches...Any advise? I have not decided where to put the KC-2 but I have an unbuilt Explorer II for 20M/ anybody put a KC-2 in an Explorer II?

Ron KB6GK  
NorCal #1718  
San Francisco

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Brian Short <ke7gh@primenet.com>  
Subject: [4240] FW: [BitBucket] FS / WTB (infrequently posted)

Message-ID: <01BBA32A.319AC0C0@ip059.phx.primenet.com>

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From: Brian Short[SMTP:ke7gh@primenet.com]  
Sent: Sunday, September 15, 1996 5:05 PM  
Subject: [BitBucket] FS / WTB (infrequently posted)

Current wanted/sale/trade status follows:  
(keeping FT-736/R-7000/bricks/modules etc)

#### Wish List

- 1) oscilloscope (Tek 465 or equiv)  
2) MFJ V/HF ant analyzer w/freq cntr  
3) RGB analog monitor  
4) HAL ST-8000 "reasonably" priced or equiv  
or, SCS/Paccomm Pactor/DSP-4100/PCI-4000 Clover  
or, 'classic' Robot/HAL/other items  
5) 1.5kw+ HF wattmeter or tuner w/wattmeter  
6) Yaesu FT-990/1000(mp) filters or accy  
7) manual for Dovetron MPC-1000CR (not model 2)  
8) 'neat' stuff...

#### For Sale/Trade

- 1) Yaesu SP-767 spkr/MD-1 mic (match FT-736 etc)  
2) Mac+ 4Mb 30+100Mb SCSI Toshiba sgl spd CDRom  
3) ISA SCSI controller, 200/83Mb HDs, Corel SCSI  
4) older ISA: VGA/EGA/ser/par/mouse cards/mice  
5) Landwehr 2m preamp, MM 10m preamp  
6) 1296 2-port power divider  
7) PK-232MBX w/Pactor  
8) 50' 1/2" Andrews hardline w/N's (cheap)

ke7gh@primenet.com (direct) or (602)839-3484 anytime !!

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Submissions: bitbucket@primenet.com  
Administrative requests: majordomo@primenet.com  
WWW: <http://www.primenet.com/~ke7gh>  
Questions: owner-bitbucket@primenet.com

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Brian Short  
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<http://www.primenet.com/~ke7gh>  
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From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: chuckolson@juno.com (Chuck Olson)  
Subject: [4220] Inexpensive Memory Keyer kit for sale  
Message-ID: <19960912.085950.4807.2.chuckolson@juno.com>

Jackson Harbor Press is pleased to offer the WB9KZY keyer kit for sale:

Keyer Chip, \$5 (includes schematic, parts list, construction and operation info)  
Chip + circuit board, \$13  
semi kit, \$20 (includes chip, board, EEPROM and all other board mounted parts)

add \$2 for shipping in US (DX please inquire)

Please email for more info: [chuckolson@juno.com](mailto:chuckolson@juno.com)

Jackson Harbor Press  
N21W1418 Foss Road  
RR1, Box 91C  
Washington Island, WI 54246-9718

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Doug Hendricks <ki6ds@telis.org>  
Subject: [4215] Jim Cates Dinner Report & St. Louis Tuner Demo  
Message-ID: <323B82CC.1091@telis.org>

The dinner at the Round Table Pizza Parlor in Mt. View was a great time had by all. Jim Cates, Dave Meacham, Stan Cooper, David Adams, Jeff Furman, Ralph Butler, Wayne Burdick, Jeff Anderson, Bob Tellefsen and Doug Hendricks were in attendance. We devoured 3 pizzas and had a great time talking QRP. It was Jim's first time to attend and I know that he enjoyed himself immensely.

I am sorry to report that the QRPps have not arrived from the printer, even though they were sent via UPS last Friday. So much for 3 day delivery!!

Jim and I set up a QRP demo station at the Foothill Flea Market. We



used a ST. Louis Vertical, St. Louis Tuner, NorCal Keyer, Arizona Scorpion Paddles, and NorCal Sierra. The entire station was homebrew. I have one of the Radio Shack amplified speakers, and used it to give the Sierra audio a little boost. We quickly generated a crowd of people around the setup, and had a steady stream of interested hams. I was especially interested in watching the response to the St. Louis Vertical. It is held in the ground by a 8 inch nail, and that is it. People would walk by, look at it, and then say, "What holds it up? Where are the guys?" The secret is that it is built on a 20 Foot South Bend SD-20 telescoping fiberglass pole. There is a coil wound on the bottom section with 300 ohm twin lead, and then a radiator is extended from the top of the coil to the tip of the fishing pole. Lots of interest. Everyone that walked by had to stop and look.

Stan Cooper, K4DRD brought his Sierra by with all of the bells and whistles. It has the KC-2 in it, and by pressing combinations of buttons, Stan could read his frequency, keyer speed, power out, and had an S meter! The KC-2 is the "final touch" to a great radio. Stan hooked a dummy load to his Sierra, and we had maybe the shortest distance qso, 36 inches. That is from rig to rig, from antenna to antenna was about 10 to 15 feet.

Stan then got on the St. Louis Vertical and worked a guy in Palo Alto. He signed /QRP and the guy gave him a 329!!! And Palo Alto is about 10 miles away! I then tuned off just a fraction and gave the guy a call, tail ending Stan. This same guy, gave me, using the same radio, antenna, etc. the following report: 559. Of course I didn't sign /QRP. Hmmn.

It was great to see all of the NorCal guys, and one of them, Chuck Mahler invited Jim and I out to the W6CYX repeater group picnic to demo the ST. Louis Vertical. We got treated to some great tri-tip and steak, and we set up the station for a demo. There are lots of NorCal members in the W6CYX group, and again, Jim and I had a great time.

Next weekend I will be operating with the SLV in the QRP Afield contest. My choice of sites? The Dos Palos Water Tower City Park!! Hope to work you all.

By the way, KC-2's are available now from Wilderness Radio. They are selling for \$75. Give Bob Dyer a call if you need more information. Great product. I have no financial interest in Wilderness Radio. Nor do I get paid from them in any way. Just another satisfied customer.

72, Doug, KI6DS

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Dale LeDoux <dledoux@laci.net>  
Subject: [4258] long-wire exotica  
Message-ID: <1.5.4.16.19960915173219.2cd73628@laci.net>

To anybody who cares:

Perhaps the best invisible antenna wire I ever found came from a TOW missile range in Germany. For the uninitiated, the TOW is a WIRE-guided antitank missile with a range in excess of 3000 meters (quite a bit in excess, but that used to be classified). Anyhow, I was supervising a detail on the TOW missile range and one of our tasks was to clean up that wire. It is apparently some sort of phosphor-bronze stuff, hair-thin and hell-for-strong and danged near invisible on the ground, where it was a hazard to passers-by. During the course of the detail i aquired a couple of bobbins of this wire from spent missiles. Hauling one back to the quarters with me, it became a fine long-wire from my second-floor apartment to a tree a couple of hundred meters away. Only problem was trying to solder it. Couldn't get solder to stick, so I used a screw and washer for a terminal. For all I know, it is still there (from 1977, yeah, right!)

Dunno where one would even start to find such stuff these days unless you have contacts on an army post. However, that is not the point of this discussion. The point is, we all have to be improvisors. With the many of us on here with jobs in varied fields, we all find strange things which we can apply to this hobby, sometimes in unlikely places. You don't have to have a lab with six-figure test bench to be an experimenter, just need an imagination...

72,

Dale LeDoux  
Bath Electrical Systems  
Power Specialists -- 480 V to 230 KV  
KD5QI

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: W3HMS@aol.com  
Subject: [4217] NORCAL CASCADE....Two Kits Available  
Message-ID: <960915010104\_308691313@emout02.mail.aol.com>

In a message dated 96-09-12 11:04:41 EDT, lve1@inel.gov (Larry V East) writes:

<<

Gang.....There are two Cascade kit available to sell. Each is complete to best of our knowledge but not fully inventoried and never started., i.e. not one part or solder mark on board. Each is \$178 shipped within the 48 Continental States, we can negotiate for HI and AK.

Send EMAIL or call 717-697-3633 or mail to John, W3HMS, 912 Robert St. Mechanicsburg, PA 17055.

73, John W3HMS

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Forwarded message:

From: lve1@inel.gov (Larry V East)

To: W3HMS@aol.com

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996

From: adams@chuck.dallas.sgi.com (chuck adams)

Subject: [4219] Oblate Spheriods in Distance Calculations

Message-ID: <199609150546.FAA28208@chuck.dallas.sgi.com>

Gang,

Someone brought up the topic of Great Circle Bearing Distant Calculations and the fact that the Earth is not a perfect sphere. Let's take a look at what that means.

>From "Fundamentals of Physics" by David Halliday and Robert Resnick published by John Wiley & Sons, Inc.

Equatorial Radius of the Earth      6,378 km

Polar Radius of the Earth            6,357 km

Mean Radius of the Earth            6,371 km

OK, the Earth is not a perfect sphere what does this do to the distance calculations?

I took the Latitude and Longitude for some cities and using Dallas TX as 32.783N 96.800W

got the following distances using a sphere of radius equal to each of the three numbers above

City	Lat	Long	6378km	6371km	6357km
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Forest,MS	32.364N	89.474W	2722km	2719km	2713km
Greenwich,CT	41.026N	73.629W	2248km	2245km	2240km
Nagoya,Japan	35.167N	136.833E	3680km	3676km	3668km

and for those that like things in miles

Forest,MS	427mi	427mi	426mi
Greenwich,CT	1396mi	1394mi	1391mi
Nagoya,Japan	2285mi	2282mi	2277mi

So using the average I'm not more than about 5 miles off and for halfway round the world maybe at most 25 miles. This means for 5W and doing the miles per watt calculations the error is not worth the extra effort. There are too many other factors involved to even get anywhere near being exact for these calculations. There is more of an error in the power measurements.

Yes, there is a program that will reduce the error but it is mathematically far too complex considering the gains. IMHO.

If you want to check the errors out, run from [LISTSERV@LEHIGH.EDU](mailto:LISTSERV@LEHIGH.EDU) the command

```
RUN QRP-L X CALLS2DIST your_call another_call
```

where both stations are USofA. This program uses the mean radius. Then compare with the other program results.

There is not a universal call lookup for DX and probably will never be. There is also the problem of having a geographical server on the Internet that has the Lat/Long data for every city in the world. The last two problems are the reason why the distance calculations available are only for FCC database lookup and the geographical server using zip codes does the calculations. The program works well and certainly saves a lot of effort on our part to determine the distance between the two stations.

For those who participated in TMPS this summer.

If you have the time, run all the US contacts on 30M through the CALLS2DIST routine (over a period of a week or two - don't put LEHIGH in overload by running them all in one mailing). Then sort in order of ascending distance. Give me the number of contacts made between 200 mile intervals from your QTH. Give me your power level and antenna. I'll compare the results with mine. Should be an interesting graph if you have over 100 contacts. You may want to consider doing this for all bands over a long period of time. It just might surprise you what it shows. I even plotted distance of contact vs time of day for all 30M contacts.

FYI

dit dit

Chuck Adams (K5FO CP-60) 49/49/50 adams@sgi.com  
EMPS Qs=0 STATES=0 DX=0

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "Kelly Ellison" <kelman@dialnet.net>  
Subject: [4251] QRP & RC Soaring  
Message-ID: <199609152039.PAA13116@shell.dialnet.net>

Hello,

I have noticed that several who post to this group show their WAS progress underneath their signature. Are these 2-way QRP contacts, or QRP to QRO, or mixed?

Now, second Question. Not quite QRP related, but almost:

I am thinking about getting into RC Soaring. There is quite a bit of info on The Web...

But I am interested in finding someone on QRP-L that might be able answer so questions I have. I know a lot of Hams are into this hobby as well.

Thanks for the use of system ...I hope I spelled everything correctly and put punctuation in all the right places.

Kelly Ellison - WB0WQS  
Aurora, Missouri - The Summit City of the

Ozarks

kelman@dialnet.net

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: harry.bump@hamdata.leba.net (Harry Bump)  
Subject: [4259] QRP Afield  
Message-ID: <842832698@hamdata.leba.net>

Help!

Somehow I misplaced the details for the QRP Afield, ie, operating period et all. Would appreciate a post with the details for the event.

72 es tnX,  
Harry

QRP-ARCI #3875    QRP-L #637    NORCAL

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From owner-qrp-l@lehigh.edu    Sun Sep 15 23:12:25 1996  
From: rob3ert@juno.com (Robert G. Parks)  
Subject: [4218] Slinky's  
Message-ID: <19960914.191051.8950.2.rob3ert@juno.com>

For those of you who might be looking for a Slinky, I have just found that the Edmund Scientific catalog #16C9 has one listed on page 93, for \$7.95.

Standard disclaimers.

Bob Parks  
K6AEC  
QRP-L#630

From owner-qrp-l@lehigh.edu    Sun Sep 15 23:12:25 1996  
From: GREGOIRE@ENDOR.COM (ERNEST GREGOIRE)  
Subject: [4245] Small Amplifiers  
Message-ID: <199609151915.PAA56908@nss2.CC.Lehigh.EDU>

Hello John, and Gang,

I just bought one of those amps. I was going to build the amp featured in the ARRL Hand Book, but the MRF 477 is no longer in production. There are substitutes of course but the physical layout of the P.C.B. prevents thier use.

The H.B. amp is 2 watts in and 50 watts out, and the CCI amp, based on the identical AN 762 application note from Motorola is 2 watts in and 100 to 180 watts out depending on the transistor chosen for the amp.

I am working with the ARRL technical engineer to put a good ALC circuit,into my amp, and to use the swr meter circuit that is featured in the now defunct ARRL hand book amp.

The plans in the hand book call for building a band switch, I plan to use relays to switch the filters.

Has anyone else built an amp like this?

Your input(love a pun) would be greatly appreciated.

73 de AA1IK  
Ernie

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Mike Czuhajewski <wa8mcq@u1.abs.net>  
Subject: [4263] Step attenuator set for sale  
Message-ID: <Pine.BSI.3.93.960915223528.15070B-100000@u1.abs.net>

Step attenuators are very much QRP related; they are great for experimenting and building and testing things, and if you're a milliwattting fanatic they're also useful for operating--I've used attenuators on the output of my TS-430S many times, when even the full counterclockwise setting of the power control was too much. Now that I've justified this as being QRP related--

For sale--one pair of Telonic rotary step attenuators, 50 ohm impedance, with BNC connectors; \$20 for the pair, plus shipping (sold as a set only). Power and frequency rating unknown, but I've never seen any rotary attenuators of less than 1/2 watt.

They are model TB-50A, 0 to 10 dB in 1 dB steps, and TA-50A, 0 to 50 dB in 10 dB steps. These are rather old and clunky and heavy, but at least they're clean and shiny! I cleaned them up with metal polishing compound since they were almost black with tarnish when I bought them. Age unknown, but they sure aren't in the current Telonic catalog! An educated guess would be that they're from the 60's.

Size: The TA-50A (0-50 dB) is about 2 1/3" dia, 3.42" long from knob to rear; if panel mounted, 2.23" would be behind the panel. The skirt of the knob is about 2.5" dia.

The TB-50A (0-10 dB) is 3" dia (!), sticks 2.5" behind a panel and the overall length from rear to the end of the knob is about 3.68". The skirt of the dial is 2.5".

Performance--I checked both of them on a Hewlett Packard 8753D network analyzer and recorded the values at 30, 150, 500 and 1000

MHz. The TB-50A (0 to 10 dB) is pretty close to the nominal values at 30 and 150 MHz, with the worst deviation being at the 9 dB setting, which was 9.05. (I include the data for all settings at all 4 frequencies.)

The TA-50A, 0-50 dB, isn't quite as good, but it's not a major drawback as long as you know the actual values (which I provide) and compensate for it. The 20 dB section is the worst, running 17.36 at 30, 17.41 at 150, 18.6 at 500 and 21.01 at 1 GHz. The 30 dB setting is 28.98 at 30 and 150, 29.69 at 500 and 30.84 at 1 GHz. Forty is 38.8, 38.6, 39.2 and 40.0, while 50 is 49.2, 48.4, 48.5 and 50.7. Remember, if something is off by a dB or two and you don't know it, then you'll have problems; but if you're aware that the actual attenuation is a bit off from what the dial says, you can take it into account.

Another "wart"--you have to "jiggle" the knob a bit on the 10 dB position to make it seat firmly.

Old and big and not an especially pretty design, but they work and I do provide a complete list of the network analyzer readings at 4 frequencies for all settings. If you want them and someone else gets to me first, don't despair--I have some other step attenuators of various sorts that I'll be cleaning up, fixing and testing in the future and I'll list them for sale on QRP-L as I get around to them.

73 and Queue Our Pea DE WA8MCQ                      wa8mcq@abs.net

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: wq8q@juno.com (Rick Tyler)  
Subject: [4225] Ten-Tec QRP  
Message-ID: <19960915.094242.7719.0.wq8q@juno.com>

I know we've heard directly on this list that Ten-Tec is bringing out new QRP kits this fall, but it's comforting to see they've already included a notice in their advertising (QST Oct 96 pg 163) that says:

COMING SOON--QRP CW TRANSCEIVERS FOR 80, 40, 30 AND 20

I hope it is in time for Christmas, 'cause I'm making my list!

72/73 de Rick, WQ8Q



\*\*\*\*\*  
Rick Tyler, Amateur Radio Station WQ8Q  
Cincinnati, Ohio  
ARRL-VE, QRP-L 583, MI-QRP 1532, QRP-ARCI 9225  
\*\*\*\*\*

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: smgeorge@erols.com  
Subject: [4253] Thanks for the advice.  
Message-ID: <323C8A2A.B99@erols.com>

Thanks for all of the answers to my request for advice on kits for a beginner. I received about 25 helpful answers. The results are as follows:

Kit	# of recommendations
Wilderness 40a	7
OHR (various models)	4
W6EMT NW40 (40m ver of 8020)	3
SW30	1
S&S Engineering	1
Wilderness Sierra	1
Total	17

Other responses had to do with antennas, grounding, and general advice. One response suggested that the best antenna solution was to move out of my 3rd floor apartment.

Thanks (in no particular order) to:

AA7TA, KF4KSM, WB8ZJL, KC7CKP, NQ7K, N4SO, W6EMT, WA3REY, KF2PH, WA7FCU, AA0UB, N3AAZ, VE5RDV, K3TKS, KJ4ER, W6EMD, KG8WH, WB5GWB, KE3NV, N0IT, W6TOY/3, KB6GK, and all others that responded.

Mike George  
N3WHJ

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: John Dorson K2JHU Real Estate Consultant <jdorson@bbs.mpcs.com>  
Subject: [4242] trip to CO.  
Message-ID: <199609151840.0AA02981@bbs.mpcs.com>

Hello all.

I'll be visiting my son in Aurora CO early next month and hope to take one of my QRP rigs with as well as my 2 mtr ht. I'll probably

use a dipole for 20 mtrs.

Questions. 1)any repeaters in the Aurora area and  
2)any ham related places there or in Denver.

Thanks for the help in advance...  
John Dorson Real Estate Consultant  
E-Mail To: jdorson@bbs.mpcs.com

```
-----  
| Trying for WAS -      AL,AK,AZ,AR,CA,CO,CT,FL,IL,IA,KS,KY,LA,ME,MD,MA|  
|                      MI,MN,MT,NH,NJ,NY,NC,ND,OH,OK,OR,PA,RI,TX,VT,VA|  
|                      WA,WI                                           |  
|-----|
```

K2JHU only QRP... CQC #351, GQRP # 9092,

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Dale LeDoux <dledoux@laci.net>  
Subject: [4262] under-driving antennae?  
Message-ID: <1.5.4.16.19960915200421.3ac7a0a6@laci.net>

At 21:47 9/15/96 -0400, you wrote:

>On Sat, 14 Sep 1996, Stan Goldstein wrote:

>[regarding a beam antenna ...]

>>

>> 1 kw out ? since you usually only use < 1 watt, I would make sure that  
>> the minimum power needed to drive the beam is that low, when you  
>> calculate wire loss and add in the multi-element losses, you may not  
>> be running enough power to properly drive the beam to realize its  
>> potential over a dipole.

>>

>

>I'm interested by the above concern. Is there in fact any passive circuit  
>where the performance (in dB terms) varies with power in? Is there really  
>ever a "minimum power needed to drive" antennas?

>

>Looking forward to a good technical discussion,

>

>72, VE3UWL

>

>Bruce G. Robertson Dept. of Classics, U. of T.

>

A sticky question, I'm sure. Not having a PhD or anything like that to back  
up my stand, I think that the antenna will perform just fine at the qrp  
level. A dB of gain is a ratio, and ratios are not affected by input. 3 dB

gain doubles a milliwatt just as well as a kilowatt. As far as my limited knowledge is concerned, antennae are often limited as to maximum power due to the inability of components to withstand the voltages, currents and power levels within certain parts of matching networks or traps.

Now, as a QRP'er, it behooves us to optimize whatever antenna we happen to use, be it a beam or a random wire. On a beam, this means removing resistance at element connections, etc. to make sure our few milliwatts actually gets to the antenna and each element does its job without absorbing energy through resistance.

Sooo... use your beam. Clean up all the connections, tune it up and fire it up. It'll work...

72,

Dale LeDoux  
Bath Electrical Systems  
Power Specialists -- 480 V to 230 KV  
KD5QI

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Ron Giuntini <rong@slip.net>  
Subject: [4231] Wire for dipoles  
Message-ID: <E0v2JHs-0006mQ-00@mouse.slip.net>

Is there any reason I should not use fine guage wire for a QRP dipole? I want to put together a portable 40M antenna and have put RCA connectors on RG174 and want to use some kind of fine wire for the dipole. I am pretty sure there is a best wire to use but what might it be?

Ron KB6GK  
NorCal #1718  
San Francisco

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "Bill C." <wrc@tir.com>  
Subject: [4238] Re: "free" parts II  
Message-ID: <323C5634.78B7@tir.com>

Steve & Everybody,

I just happen to have a small pile of those old goodies lying around

here. I would offer a free one to each person desiring one until they are almost all gone ( I want a couple of them for myself). The problem is how to get them from here to wherever "there" happens to be. They are \*heavy\*. There are one or two dozen useless radios here. I traded a stack of six at a swap one time for two hot dogs and a can of soda!! All of them are VHF low band (@ 6 meters).

73,

Bill KU8H

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: u1002895@warwick.net  
Subject: [4227] Re: Argonaut & R-71A off the block  
Message-ID: <323A1068.404B@warwick.net>

Thomas J. Whalen wrote:

>  
> On Thu, 12 Sep 1996, William K Hibbert wrote:  
>  
> > Last week I listed a Ten Tec Argonaut and an Icom R-71A for Lou, KA2DQA.  
> > Lou doesn't have an E-Mail account yet, and thanks to whomever form the  
> > QRP-L that called, won't in the foreseeable future...  
> >  
> > I got a packet message from Lou today, and he is withdrawing the items  
> > from the Sale table. The reason that he's doing this is that a member  
> > of the QRP-L, who Lou wouldn't identify to me, called him on the twisted  
> > pair, and offered him \$140.00 MAX for the Argonaut, saying that "it's  
> > not worth any more than that..."  
> > (Lou was asking \$260 with a Desk mike, and the outboard calibrator, and  
> > WOULD have discussed the price, within reason...) He felt that this was  
> > an insult, and is putting the rig back on the bench to run as a backup  
> > rig.  
> >  
> >  
> > I have to agree with Lou. That was an INSULT, and I am sorry to see that  
> > it allegedly came from a member of this group. Even if it wasn't a  
> > QRP-L'er, it was still an insult.  
> >  
> > I know this was posted earlier, but just what is a fair price for an  
> > Argonaut 509, in good physical condition, perfect electrically, and  
> > including a desk mike and calibrator worth??? My feel is \$220 - \$260 as  
> > described... Am I out in Left Field with this?  
> >

> > If you have a feel for this item, drop me a direct line (wb2vuo@juno.com)  
> >  
> >  
> > 72, Keith, WB2VU0, QRP-L # 582  
> >  
> >  
> Keith, I picked up a mint 509 at the last Albuquerque hamfest for 100.  
> Also got the matching model 250 pwr supply and desk mike with it. I think  
> I got a good deal! Tom WB5QYT qrp-l 640

geez, I got a 505 and manual for 35 at matamoras,pa and works  
fb, but needs dial cord restringing...prices vary wildly.....  
no-one is gonna turn down a good deal...if i were selling  
something I wud suggest a high/low price? so as not to embarrass  
anyone?  
my thoughts...Jim

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: George Gingell <k3tks@u1.abs.net>  
Subject: [4224] Re: Argonaut 509 \$  
Message-ID: <Pine.BSI.3.93.960915083518.4462D-100000@u1.abs.net>

Bob,  
Thanks for the comments, You are correct of course. It is really the  
old story of what the market will bare. Maybe we should remind others  
that if they are in doubt as to what is a reasonable "Suggested Selling  
Price", that they ask some of us on the list. I for ne know that we have  
some BIG Time Wheeler-Dealers on this list :-) No, I am not one. I  
usually buy them and PACK Rat them forever. :-)

QRP DX TU (C) 1986 G.Danny Gingell, K3TKS@.abs.net

On Fri, 13 Sep 1996, Bob Hightower wrote:

> I lost the original message, but remember the thought, so this is not  
> directed to Danny in particular.  
>  
> If you are selling something, and don't want 'insulting' offers, please name  
> a price. Far too many rigs/equipment are offered at 'best offer' or some  
> other nebulous (sp?) cost. I never respond to these other than to ask 'how  
> much'.  
>  
> If you have a value in mind, please state it before you ask for offers,

> otherwise you can expect some that are low...who knows, a low-ball sometimes  
> works.  
> 73,  
> Bob KI7MN NorCal 1221 ARCI 8918 Qrp-1 271 CQC 274 ARRL (Not in any  
> order of importance!)

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Bruce Robertson <brucerob@chass.utoronto.ca>  
Subject: [4261] Re: Beam Restoration  
Message-ID: <Pine.SGI.3.91.960915214438.25343A-1000000@chass.utoronto.ca>

On Sat, 14 Sep 1996, Stan Goldstein wrote:  
[regarding a beam antenna ...]

>  
> 1 kw out ? since you usually only use < 1 watt, I would make sure that  
> the minimum power needed to drive the beam is that low, when you  
> calculate wire loss and add in the multi-element losses, you may not  
> be running enough power to properly drive the beam to realize its  
> potential over a dipole.  
>

I'm interested by the above concern. Is there in fact any passive circuit  
where the performance (in dB terms) varies with power in? Is there really  
ever a "minimum power needed to drive" antennas?

Looking forward to a good technical discussion,

72, VE3UWL

Bruce G. Robertson Dept. of Classics, U. of T.

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Monte Stark <ku7y@sage.dri.edu>  
Subject: [4214] Re: Call for Moderation  
Message-ID: <Pine.SUN.3.90.960914211159.12034B-1000000@vortex.sage.dri.edu>

All,

This is a collection of people who like QRP. But notice that  
we are all poeple. That means we also have other things in  
our lives!

One of the nice things about this list is getting to "know" some of the others. If we only talk strictly about qrp, we would miss so much.

I wouldn't mind having the subject line used better. Then we could delete without having to read some things.

But a moderator? Never!

Think of all the fun we are having listening to the different thoughts about english. Here is a language that is still in a state of flux.....rules and spellings change from time to time....."i" before "e", except after "c", unless it's a rainy night down south.....and etc!

If you can understand what someone is trying to say, they what's the problem?

Hmmmmm, think I'll turn this thing off and get on the air. At least there I can chat away without worry about having to pass someones test! :-)

I thought it was Mark Twain who said "I don't trust any man that spells the same word the same way twice".

Amen, cul,

73, Ron,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "Richard" <rburden@rand.gp3.ecel.uwa.edu.au>  
Subject: [4216] Re: Call for Moderation  
Message-ID: <199609150441.MAA07396@rand.gp3.ecel.uwa.edu.au>

> From: Monte Stark <ku7y@sage.dri.edu>

Whilst you raise good points about the need for people to concentrate more on the content of the communication than the medium itself, I personally support the call for a moderator.

Without one, I'm afraid this list gets the flick due to the

overwhelming spurious content.

Regards,  
Richard

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>  
Subject: [4222] Re: Call for Moderation  
Message-ID: <323be28f.pandora@pandora.lugs.org.sg>

Hi Gang,

The way I see it is that the list has been doing fine all this while without the need of a moderator. Even with the occasional excursions into non-QRP topics (which makes this more of a community BTW), I still have enough faith in the community to say that I don't think we really need a moderator. I would like to believe that we QRP'ers are sufficiently principled and well-idealed (huh?) people to be able to moderate what we send to the list. I also believe that whatever they have sent in the past, be it QRP or otherwise, have been done with the aim of making the discussions more fun, or in order to add more interest to the topics being discussed. Of course, there are also those genuine cries for help.

Sure, it would be nice to be always talking about kits but the fact of the matter is that most kits have been "talked to death" (huh huh?) here and there aren't that many new kits that are so different so as to generate a lot of discussions on. I still remember some years back when this list started, it was kits everyday! Now everything's in the FAQ's.

So the way I see it, things are quite "normal" around here and as they say, "If it ain't broken, don't fix it!".

72 de 9V1ZV Daniel

Glossary  
-----

BTW	By the way
QRP	Not QRO
QRO	Not QRP
huh?	Is there such a word?
huh?^2	Is there such a phrase?
FAQ	Frequently asked questions
72	QRP version of 73
73	QRO version of 72
"normal"	Abnormal



community This great bunch of mutually understanding and patient guys!

--

```
*-----+-----+
| Daniel Wee | daniel@pandora.lugs.org.sg      |
| 9V1ZV      | danwee@singnet.com.sg                    |
| QRP-L #667 | daniel.wee@f516.n600.z6.fidonet.org |
+-----+-----+
```

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Dan Hogan <dhhogan@lightside.com>  
Subject: [4235] Re: Call for Moderation  
Message-ID: <m0v2JeI-0006k8C@covina.lightside.com>

NEGATIVE

Dan Hogan  
West Covina, CA  
dhhogan@lightside.com

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Dan Keen <70731.722@compuserve.com>  
Subject: [4239] Re: Call for Moderation  
Message-ID: <960915165714\_70731.722\_EHM32-1@CompuServe.COM>

> This is a collection of people who like QRP. But notice that  
> we are all poeple. That means we also have other things in  
> our lives!

>

> One of the nice things about this list is getting to "know"  
> some of the others. If we only talk strictly about qrp, we  
> would miss so much.

> I wouldn't mind having the subject line used better. Then  
> we could delete without having to read some things.

>

> But a moderator? Never!

>

> Think of all the fun we are having listening to the different  
> thoughts about english. Here is a language that is still in  
> a state of flux.....rules and spellings change from time to

> time....."i" before "e", except after "c", unless it's a  
> rainy night down south.....and etc!  
>  
> If you can understand what someone is trying to say, they  
> what's the problem?

As always Monte Stark's message above is chock full of good common sense (even though I do support the idea of a moderator and he doesn't). A very good point he makes about allowing users to not just talk about QRP a full 100% of the time.

It seems to me that adding a moderator to a public forum does two main things: keeps subject matter apropos as Monte pointed out. But also the moderator then becomes the stud cop and therefore all the unofficial cops have the rug pulled out from under them which surely would be a good thing.

A casual, unofficial, forum cop will often hit-and-run and act irresponsibly. Witness the poor old-timer who got needlessly blasted because of his charming message in the old bygone days "mill" format (caps-minimal punctuation). Unofficial cops are quick to blast. But cops who are on duty continually soon learn that policing mindful of public relations and manners are a key to making things easy on everybody, including themselves. (Unless the pro cop is in really stressful life and death situations all the time, then they can flip out and go crazy, witness Rodney King's treatment et. cetera).

Adding official moderation to a forum replaces a quick to anger vigilante type rules enforcement with a cool headed professionals. I think that the QRP-L list could only be made a higher quality public forum by adding official moderation.

Dan KN6TM

70731.722@compuserve.com

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "J. Skalski" <jskalski@acsu.buffalo.edu>  
Subject: [4246] Re: Call for Moderation  
Message-ID:  
<Pine.GS0.3.93.960915150056.22903A-100000@conciliator.acsu.buffalo.edu>

I have been moderating this thread since it started.....  
<del>

Jim N2GO  
The Buffalo QRP CONNECTION  
ARCI #9013 QRP-L #381  
jskalski@acsu.Buffalo.EDU

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: lhalliday@creo.bc.ca  
Subject: [4257] Re: Call for Moderation  
Message-ID: <9608158428.AA842828251@mail.creo.bc.ca>

While I don't think a moderator is necessary (For those who do - are \*you\* prepared to invest the time and effort to do so? And put up with the ensuing crap?), I'd really like to see the list a little more focussed on radio.

Is radio really that uninteresting when the competition is such yawn-worthy subjects as spam messages and byzantine licensing systems? Have you heard or done anything interesting lately? Read something interesting? Come across a nifty circuit? Did you try it? Did it work? How well? Anything interesting in the magazines? What magazines do you read, anyway? What do they say?

Any decent magazine should produce a steady stream of discussion fodder...and it's not a crime to purchase magazines that come from other countries, or are not strictly ham magazines.

I try to ignore the meta-discussions and post things that are technical. But, as a recent example, my Huff and Puff postings produced a number of personal replies. One mentioned a commercial rig that uses it. A couple more related personal experience with Huff and Puff. All the others requested a translation of the Catherine Deneuve quote in my .sig. No, she wasn't talking about me. :-)

Speaking of Huff and Puff, I started by building a generic W7ZOI/W1FB VFO for 40 meters. With junkbox parts on an ugly board it drifts 1.5 kHz in the first 5 minutes, and then stays more-or-less put. However, it's disasterously microphonic and reticent to start, so I'm going to revise the physical layout of the tank circuit to address the first problem (and reduce the 6.7 to 7.3 MHz tuning range while I'm at it), and the FET biasing to address the second. Then it's time to make with 74HC logic, varactor diodes and the like. What next? Surface mount?

Laura Halliday VE7LDH

"C'est une femme mutine, assez

lhalliday@creo.bc.ca  
ve7ldh@amsat.org  
Locator: CN89mg

elegante, grave et legere, ayant le  
sens du confort et du plaisir  
en tout." - C. Deneuve

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: kc5moe@juno.com (John E Hutter)  
Subject: [4233] Re: Call for Moderation-READ THIS PLEASE.  
Message-ID: <19960915.105712.7287.1.KC5MOE@juno.com>

AS DESCRIBED in the ORIGINAL posting (see below) I think a moderator is  
an excellent idea.

>For those that may not know, a moderator is appointed or elected  
>and enforces the "rules of the list". This is accomplished by  
>sending polite private messages to the originators of off-topic  
>messages. Also, the moderator is the ONLY one allowed to  
>post messages to the list in matters of administration. i.e.;  
>calling an end to a thread, posting the current rules, or  
>declaring a subject off topic, etc.

I see nothing about censorship here and I think we can reasonably expect  
the moderator to 1) act with moderation and 2) solicit and respect our  
input when the rules are made.

If someone is a little off-topic and it is generating genuine interest  
and not just a lot of flame, the moderator should show a little  
discretion and leave it alone. On the other hand some threads (like the  
recent plethora of innovative suggestions on how to deluge a certain  
individual with copious e-mail) could be given the early death they so  
richly deserve.

If someone leaves his reply settings on copy all recipients when a  
private reply is more appropriate, let the moderator deal with instead  
of chewing up even more bandwidth with ANOTHER public reply telling him  
not to do that.

Just my opinion, which like rectal tissue, everyone has and 99% of which  
stink including mine.

72,73 de KC5MOE -- John

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "Bill C." <wrc@tir.com>

Subject: [4266] Re: Clarification on Bifilar toroids  
Message-ID: <323CF384.5A6E@tir.com>

Dave,

Lay the two conductors alongside each other and clamp one end of the pair in a vise or other gizmo to hold them. Stretch them out together and chuck the other end in your drill. Turn on the drill and twist the wires together until you have about 8 twists per inch. Just count the funny little bumps on the twisted pair alongside one inch of a ruler (16). The number of twists per inch will be uniform this way.

You think a drill is dangerous to use this way? Don't have a drill? Don't have a vise? At each end of your untwisted pair make a small loop. Place one loop over a nail or anything that it will hang on. Stretch out the pair, place a pencil or small screwdriver shaft through the loop on the free end. Holding a small amount of tension on the wire pair, start twisting. It takes a bit longer, but the result is the same. After you've twisted the wire pair use it to wind the eight turns (or whatever count is called for). Lay out enough wire at the start of this process to cut off the loops you made or chewed up in your drill chuck.

I hope this makes it clear for you. Good luck.

73,

Bill KU8H

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Brian Short <ke7gh@primenet.com>  
Subject: [4249] RE: CMOS II/III Switches  
Message-ID: <01BBA342.3064C4E0@ip147.phx.primenet.com>

I prefer BIG switches for big, tired fingers :)

ke7gh  
Brian Short  
(602)839-3484  
ke7gh@amsat.org  
ke7gh@primenet.com  
ke7gh@contesting.com  
<http://www.primenet.com/~ke7gh>  
1994 E Laguna Dr Tempe, AZ 85282  
yaesu-request@contesting.com subscribe  
majordomo@primenet.com subscribe bitbucket

-----

From: Roger Hightower[SMTP:rhight@primenet.com]  
Sent: Sunday, September 15, 1996 1:11 PM  
Subject: CMOS II/III Switches

I'm in the process of rebuilding my CMOS II into a Bencher cover, and found that the same momentary switches used for the KC-1 are great for any small enclosure. The Mouser part No. used to be 10PA018 or 10PA019 (one red, one black). I don't see that number in my latest catalog, but perhaps someone with the parts list for the KC2 can inform us. Requires only about a 5-6mm hole, so it's easy to line up six of these on a small enclosure.

72/73 de Roger AA7QY

NorCal 1099 CoQRP 176 QRP-L 62 G-QRP 9081 ARCI 8946 NE-QRP 383

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "J. Skalski" <jskalski@acsu.buffalo.edu>  
Subject: [4256] Re: CMOS II/III Switches  
Message-ID: <Pine.GS0.3.93.960915182950.11587A-1000000@autarch.acsu.buffalo.edu>

the switches for the kc2 are available in red and black at the radioshack  
. I used these for my cmosIII

73,

Jim N2GO  
The Buffalo QRP CONNECTION  
ARCI #9013 QRP-L #381  
jskalski@acsu.Buffalo.EDU

On Sun, 15 Sep 1996, Roger Hightower wrote:

> I'm in the process of rebuilding my CMOS II into a Bencher cover, and found  
> that the same momentary switches used for the KC-1 are great for any small  
> enclosure. The Mouser part No. used to be 10PA018 or 10PA019 (one red, one  
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> with the parts list for the KC2 can inform us. Requires only about a 5-6mm  
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>  
> 72/73 de Roger AA7QY  
>  
> NorCal 1099    CoQRP 176    QRP-L 62    G-QRP 9081    ARCI 8946    NE-QRP 383  
>  
>

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Bob Hightower <ki7mn@dancris.com>  
Subject: [4234] Re: Mail, etc.  
Message-ID: <199609151551.IAA10931@dancris.com>

At 09:36 PM 9/14/96 +0100, you wrote:  
>> Maybe we can keep the list cops happy :^).  
>Not too likely, Bob. Even if the sparky, talented, club-like  
>atmosphere were totally crushed, there would be grouches complaining  
>about the spelling and/or grammar of folk whose first language may not  
>even be American (or English).  
>  
>Via QRP-L, qrpers reach out to each other, make a unique global  
>community. How can that be bad?  
>73 de G0BVZ, Vic  
>RSGB G-QRP AGCW ARCI(When I remember to renew!) SCAG DIG QRP-L #666  
>  
>

Too true, and I agree with you completely. Fortunately the grouches are in the minority. The lively exchanges are what make this list so good, as well as the wealth of technical information available.  
73,

Bob, ki7mn@dancris.com  
NorCal #1228, ARCI #8918, Qrp-l #271, CQC 274

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "John D. Spittle" <jds@vcn.bc.ca>  
Subject: [4221] Re: Oblate Spheriods in Distance Calculations  
Message-ID: <Pine.3.89.9609150018.A25350-01000000@opus.vcn.bc.ca>

Chuck:

Don't forget to take into consideration the height of the respective

antennae above mean sea level.

Cheers Derry VE7Q

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: wd4kav@juno.com (Joseph D Burnham)  
Subject: [4223] Re: radials  
Message-ID: <19960915.082657.14343.0.wd4kav@juno.com>

You can also use garden variety speaker wire. Lay it on top of the grass, and hold it down with some of the LONGEST bobby pins you can find. Works GREAT...and it WILL NOT be sucked up by a lawnmower. I've used this for years here in FL.

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: u1002895@warwick.net  
Subject: [4229] Re: Ramsey Harmonics  
Message-ID: <323C3E6E.3AB5@warwick.net>

William K Hibbert wrote:

>  
> I have to add my \$0.02 on this one...  
>  
> When I decided to get more involved in QRP, I bought ALL the Ramsey QRP  
> transmitters for a proposed QRP "TX-Box", which was going to have the  
> individual TX's for 80 - 20 Meters, switch selectable, for convenient  
> QRP operating...  
>  
> Nice thought, BUT.....  
>  
> I put the gear on a scope after I got the four TX's done, and the  
> waveform looked "squirrely", so I took the whole mess over to a fellow  
> VHF'er, who conveniently had a spectrum analyzer. Here's the results:  
>  
> 80M : F = 700 mW ; 2F = -18 dBc; 3F = -23dBc  
> 40M : F = 1.3 W ; 2F = -21 dBc; 3F = -30 dBc  
> 30M : F = 800 mW ; 2F = -13 dBc; 3F = -15 dBc  
> 20M : F = 360 mW ; 2F = -16 dBc; 3F = -10 dBc  
>  
> These are all "2 - 3 watts out..." according to the instructions...  
>  
> There were spurs, both close-in (+/-10 MHz) and VHF/UHF.  
>



> I cleaned them up by using 5-pole filters from "Solid-State Design for  
> the Radio Amateur", and got all the harmonics down to -40dBc or better.  
> First though, I called Ramsey, and with the data in hand, asked what was  
> up with the kits. I was told the I could "Pack up EACH TX, with \$18.00  
> EACH (!!!), and they would check for construction errors..." If, in  
> THEIR opinion, the fault was my construction techniques, they would keep  
> the money, and bill me for the repairs needed above the \$18.00 ransom...  
>  
>  
> I sold the whole mess to one of the locals that wanted a "toy" for the  
> winter...  
>  
> I would never consider another Ramsey kit, and I won't even go into their  
> VHF FM transceivers and Amps!!  
>  
> 72/73, Keith, WB2VUO, QRP-L #582  
> Trustee, KB2YTW/B 10 Mtr Beacon (28.2860 MHz)  
> "In the Depths of the Great Bergen Swamp...FN13ac"

Well; I have in my collection a 40m ramsey, and never checked  
anything after i built it, just hooked in my ic-725 for a  
receiver and had a ball on 40...Told all the locals what a neat  
rig it was, especially with the t/r feature, and the nice  
reports from qso's.

DANG!! Now will have guilt feelings next time I dust  
that one off. Tnx for the info. Jim kw3u

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996  
From: WJ4PRandy@aol.com  
Subject: [4243] Re:Ramsey qrp xmtrs...  
Message-ID: <960915144415\_523074217@emout10.mail.aol.com>

Considering all the responses to my question,  
I'd say two things in summary:

they "might" put out a couple of watts - but not  
all of it is on the frequency of choice,  
and, you're better off starting from scratch.

Thanks for all the "info", gang...  
73, Randy WJ4P

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>  
Subject: [4248] Re: Slinky's  
Message-ID: <Pine.SOL.3.94.960915153718.16127D-100000@utkux4.utcc.utk.edu>

On Sun, 15 Sep 1996, Robert G. Parks wrote:

> Edmund Scientific catalog

The reference to Edmund Scientific reminded me that I recently receive their optics catalog--which is a fun read and a refresher on optical principles.

Main note is that they have about 15 pages of magnifiers of almost every conceivable kind--many of which may be adaptable to PC board soldering/checking and other QRP work with very small parts.

For the next generation of chips and boards, they also sell a variety of microscopes.

-73-

LB, W4RNL

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Bensondj@aol.com  
Subject: [4247] Re: SW-30 Audio  
Message-ID: <960915152604\_523094544@emout04.mail.aol.com>

Hi gang-

Thanks to those who wrote asking for SW-30 mod information, especially with regard to low audio level. I'll consider this a 'homework assignment' from the QRP-L, and hope to post some information within the next several days.

73, Dave- NN1G

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Bill Acito 15-Sep-1996 2044 <acito@asdg.ENET.dec.com>  
Subject: [4260] Re: SW-30 Audio  
Message-ID: <9609160117.AA22469@us1rmc.bb.dec.com>

Thanks to all, including Dave Benson, who responded.

In fact, I should clarify and say that my rig is actually a 30-40, and an old one at that (FAR board?). I built it with the RIT circuit, Dave's MMIC mod, and mods from '72' and some of the other comments I collected from QRP-L when everyone else was building theirs. I increased the tank cap and added a ten-turn pot. I went through the schematic with a highlighter and marked all the component changes that had been published so I remembered to change them as I went. Seat of the pants building at it's best.

Dave, thanks for the clarification on some of mods that have been published. My records are pretty good, but I didn't have all of them, or all the discussion on them as to their merit and their disadvantages.

If somehow in my request for a comparison anyone thought I was not pleased with the rig, you're incorrect. Considering the fact that the voltages were correct, the rig didn't smoke when fired up, the fact that the coils were wrapped and checked with an Autek for the L listed in the components list (not necessarily the same turns count) and all the mods and components were done at once, I just wanted a sanity check that mine was working at par with everyone else's.

I'm currently doing the metal work and nibbling to get the rig, RIT, and KC-2 into a nice Ten Tec Constructo chassis.

Audio-wise, I'm all set. I have an audio add-on box that includes an OHR SCAF, 386 audio amp, and audio AGC/limit circuit that gets used with all of the small. low current rigs.

b

. . . . . - I own my own words - . . . . .

Bill Acito

acito@asdg.enet.dec.com

|d|i|g|i|t|a|l| Digital Equipment Corporation Hudson, MA

KC1GS            qrp-ne qrp-l adv-rs arci norcal amsat-na arrl-life

From owner-qrp-l@lehigh.edu Sun Sep 15 23:12:25 1996

From: "Robert J. Gobrick" <rgobrick@nfld.com>

Subject: [4241] Re: SW-30 Audio (long reply)  
Message-ID: <2.2.32.19960915173525.00a074d8@nflld.com>

Hi Bill,

A couple comments on your low audio from your Small Wonders Lab SW-30.

1. I've attached the reply that Dave NN1G made back in December on the post made by N6UHR (actually posted my Mike C) on the SW-40 (not the SW-30). As you can tell there may be some more background information needed before you begin any modifications. I have a 40-40 and also a 30-40 (New England QRP Club kits that were the basis for the SW-40 and SW-30) and both are great kits for the money.

2. I believe the 40-40 or SW-40 is one of the best beginner kits out there for the money and actually should be the kit that you compare with the NorCal 40. I have owned both and my personal preference was to keep the SW-40 which to me is almost the same rig at half the price. It is important for all to remember that both the 40-40 and NorCal 40 were designed as inexpensive, low power drain for field use, 40 meter 2 watt cw rigs. Both rigs had to make some design compromises to keep the price in line with that goal. The two rigs evolved and ended up being marketed by Small Wonder Labs and Wilderness Radio. The Wilderness Labs version costs more (\$130) because it has some extras like RIT (optional on SW-40), AGC and a real nice case and very important - it is easy to construct with all board mounted components. The SW-40 which has an equally good transceiver design is in the \$50 price range and you provide case, pots etc.

Both rigs were based on a simple NE-602 mixer to NE-602 product detector design with NO IF amplifier stage (MC-1350) as found in their equivalent bigger brothers the Wilderness Radio Sierra and the SWL Green Mountain series of transceivers. The reason for this is that at 40 meters both rigs have enough gain distribution to just come under the wire in terms of performance. At 30 meters the lack of that extra stage of gain with the MC-1350 IF amplifier begins to show. I will take a guess that it is the reason why you don't have a marketable NorCal 30 and the reason why the SW-30 is OK but only when the band is open and the signals are strong.

My SW-30 is OK but is no barn burner in the receive department when the signals are weak (ie I have the rf gain all the way open and no matter how much gain you have in the audio section the signal just doesn't make it through). Is the SW-30 no good? No, because as I mentioned when the signals are strong the rig performs decently for such a simple design. By the way for a little bit more money (\$72) the Green Mountain 30 is probably the better choice for 30 meters since it has the IF amp, RIT and 3 watts as part of the design. Another low cost choice is the Emtech NW-30 at \$75.

Anyway Bill just some background information for you and the folks out

there. It's amazing for some of us seeing how fast the QRP world is evolving - why it was only a few years ago that these rigs were introduced and STARTED the QRP revolution - hi.

Cheers - have fun and 73/72 Bob V01DRB/WA6ERB

PS: Just for the heck of it I fired up the SW-30 last night and I worked into Florida from Newfoundland with 1.5 watts out of my BIG MFJ mini loop antenna mounted on my work apartment balcony - both reports 559. So guess what - it is possible to have fun with the SW-30.

PPS: Dave Benson's previous post follows:

-----  
Hi Gang-

on Friday, Dec. 01, Mike.Czuhajewski@bbs.abs.net (Mike Czuhajewski), wrote:

>>Here's something I found recently on >>rec.radio.amateur.homebrew and the author

>>gave me permission to repost it here.

>> (text followed)  
-----

(I had just sent its author - Bruce Tiemann- a set of response comments (which I hope he sees fit to share with his newsgroup). I'll share them here. My original reply to him addressed the sidetone volume and mute release timing, but unfortunately I didn't save those late additions to the text. - Dave)

-----  
Hi Bruce-

I'm the author of the 40-40 construction article which appeared in the November 1994 issue of QST. A friend forwarded the posting, and I'll offer the following comments in response:

Receiver Gain-

At my location, attaching a full-size antenna to the unmodified 40-40 results in a \*noticeable\* increase in receiver noise, perhaps on the order of 15-20 dB. I changed C31 from the original .01 uF to a 68 pF to improve image rejection, which was more of a concern with the 10.1 Mhz version. As measured, the additional loss due to the 68 pF value of C31 was less than 2 dB. The value of C31 will greatly affect the sensitivity, however, if the C1/C2/T1 network is way off resonance and thus presenting a low impedance at

'RF\_In'.

In my experience troubleshooting this rig, the symptoms you describe (increasing C31 or connecting the antenna directly to T1 increases gain considerably) may be traced to one of several problems:

- 1) Accidental use of a -43 core instead of the -61 core for T1 results in a front end way off resonance. Trimmer cap C1 yields a broad peak when tuned and is set at the 3/6/9/12 o'clock position.
- 2) A short between pins 1 and 2 of U1 (across T1 secondary) or between one of those pins and ground. Trimmer cap C1 has little effect in this case. I don't have you in my customer database, so perhaps you bought a PC board from FAR circuits. FYI- I ended up scrapping 20% of the last lot I bought -a long time ago- from FAR. Most of the rejects were due to underetches, many of which resulted in shorts at the locations I mentioned. Caveat emptor.
- 3) One other long shot- Components left lying around for long periods of time (without inert gas packaging) will become increasingly difficult to solder due to lead oxidation. For some reason, this seems most acute with crystals, perhaps because suppliers turn this inventory over slowly. I'd recommend retouching all solder joints in the IF filter "just in case".

It sounds from your description like your 40-40 is down 20-30 dB from proper operation if adding a preamp \*just\* lets you hear atmospheric noise. I'd start there. This design is definitely not internally noise-floor limited on 40 Meters.

More receiver gain-

If the sensitivity on the 40-40 is real low, then you've likely got the RF gain control maxed out most of the time. When the band is in good shape, and assuming the front end is functioning properly, the NE602 is going to suffer IMD pretty badly with a preamp. It offers a much lower (worse) IP3 than the diode-ring DBMs and other Gilbert cell devices like the Plessey SL6440. The unmodified 40-40 is usable during hot band conditions because the RF Gain is right out at the front end. In general, I'd advise against using a preamp with this mixer on 7 Mhz.

Transmitter efficiency-

I note that the test measurements were taken using a 15V supply. Solving for a 50-ohm collector impedance, optimum efficiency would be expected to occur at 2.25 watts. I characterized the 40-40 for 12V operation in my writeups, as this supply voltage is normal for the battery sources often encountered in QRP/ portable applications. Also, if you're running the modified 40-40 at 3-5 watts you may want to consider modifying the output network for a collector impedance on the order of 25 ohms. BTW- I've also

been asked why the 40-40 wasn't designed for more output power. When this design was first produced for the New England QRP club, I was getting the PAs for under a buck and no heat sink was needed. We put a high premium on cost/benefit in the original design and this trade was one of the outcomes.

Birdies and Bandsread-

Yep, there's a strong birdy at 7.000. Most builders end up setting the 35-40 Khz bandsread to include the QRP operating frequency of 7.040, so they never experience this problem. I'm flattered that you want to dig for DX at the low end of the band with this rig [g]. You might try 4.096 Mhz microprocessor crystals for the IF, which relocates that low-order spur to 7.168 Mhz.

I'm not sure how much bandsread you'll get out of the 40-40 before output power falloff becomes objectionable. The TX bandpass filter is pretty narrow, and swamping down this network by reducing the Q4 bias resistors and increasing the coupling capacitors will increase the useful range. I'd doublecheck spectral purity, though, if this were pushed too far, since the reduced bandpass Q will increase the transmitter spur energy .

73- Dave Benson, NN1G

At 10:19 9/13/96 EDT, you wrote:

>  
>  
> Well, just in time for TMPS (Doh!) I completed a SW-30 last  
> night. Was waiting on an order of replacement mica caps from  
> Mouser, and the box finally showed up.

```
-----  
| Bob Gobrick - VO1DRB/WA6ERB/VE2DRB - Newfoundland, Canada |  
| QRPer Galore - QRP ARCI, GQRP, NORCAL, NEQRP, COQRP, MIQRP, NWQRP |  
| Internet: rgobrick@nfld.com |  
| Compuserve: 70466.1405@compuserve.com |  
-----
```

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996

From: DuWayne Schmidlkofer <duwaynes@postoffice.worldnet.att.net>

Subject: [4250] Re: Ten-Tec QRP

Message-ID: <2.2.32.19960915201134.008f3dc4@postoffice.worldnet.att.net>

At 01:45 PM 9/15/96 +0000, you wrote:

>I know we've heard directly on this list that Ten-Tec is bringing  
>out new QRP kits this fall, but it's comforting to see they've  
>already included a notice in their advertising (QST Oct 96 pg 163)  
>that says:  
>  
>COMING SOON--QRP CW TRANSCEIVERS FOR 80, 40, 30 AND 20  
>  
>I hope it is in time for Christmas, 'cause I'm making my list!  
>

Just stopped by at Ten-Tec las week and was told they are single band cw xcvs,  
about \$95.00 and should be ready in November( have a 30 meter one on order ).

Also picked up one of their all band cw ssb receiver kits. This is a  
real nice kit that have not heard much about before. It is a DC receiver  
ne612(602) as mixer and osc, lm358 dual op amp audio preamp and variable  
bandwidth filter, TDA2611 audio power amp. You build this up as a single  
band receiver, but they include all the tuning components (L,C) for any of  
the ham bands.

Front panel controls are RF gain (pot across the antenna input).  
Tuning and a band spread control( replaced tuning with a multi turn trimmer  
and used band spread to tune about 100 khz. on 40 m.) Audio bandpass and AF  
Gain, the  
output is a mini stereo jack . The board has provisions for a mute switch,  
side tone input, speaker output . The board runs on 9 - 12 v and has a  
jumper for running separate power to the receiver and the audio output amp.

Using the bandspread for tuning and the variable bandpass makes for  
nice tuning of cw or ssb. The AF power output amp makes this one of the  
nicest sounding DC receivers I have ever used. And for about \$30.00 it is a  
real bargain. I am considering using this board to replace the receiver in  
my old HW-7.

DuWayne  
KE4HMP

DuWayne Schmidlkofer  
Senior Field Systems Specialist  
Nicolet Biomedical Inc.

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: "Bill C." <wrc@tir.com>  
Subject: [4265] Re: under-driving antennae?  
Message-ID: <323CEEF2.835@tir.com>

Wait a minute here,



Most of us use the same beam to receive as the gain works "in reverse" to capture those signals. What is the power level of the received signal? Micro-watts? Pico-watts? It would appear there is no minimum power level.

73,

Bill KU8H

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: Bob Edwards <rbe@atlanta.com>  
Subject: [4252] Re: Wire for dipoles  
Message-ID: <323C9BAB.540C@atlanta.com>

This is a multi-part message in MIME format.

-----173043C76B41  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Ron Giuntini wrote:

>

> Is there any reason I should not use fine guage wire for a QRP dipole?

Only, that it is hard to see and easy to break or kink.

I have used #28 for a stealth 30 mtr loop. It made it through one winter, here in north Georgia.

Have used #24 for a FD CF-Zepp, where the transmission line was 300 ohm twin lead. It did have a center halyard. Used #18 on another similar FD ant that did not have a center halyard.

If you use a separate halyard to lift the center insulator & coax, then a fine wire like #24 should work. If there is no center halyard then I would go heavier, like #18. You didn't mention how long the coax was - it does make a difference and you'll want to raise the dipole as high as possible for performance reasons. Good Luck,,, 73/72 Bob

-----173043C76B41  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Disposition: inline; filename="FOOTER.TXT"

+-----+  
| Bob, AE4CA, WAS-5W | ..... "QRP", more from less....  
+-----+  
ARCII-8760, MIQRP-1410, COQRP-118, QRPL-606, ARS-145, NorCAL  
  
-----173043C76B41--

From owner-qrp-1@lehigh.edu Sun Sep 15 23:12:25 1996  
From: bob.roach@sourcebbs.com (BOB ROACH)  
Subject: [4267] Re: Wire for dipoles  
Message-ID: <8C8659B.0001042E13.uuout@sourcebbs.com>

RG>-Is there any reason I should not use fine guage wire for a QRP dipole? I  
>-want to put together a portable 40M antenna and have put RCA connectors on  
>-RG174 and want to use some kind of fine wire for the dipole. I am pretty  
>-sure there is a best wire to use but what might it be?

Hi Ron,

Unfortunately everything is a tradeoff. Fat wire gives you bandwidth  
but #8 wire isn't exactly portable. Given the relative narrowness of  
the band used for QRP wire size probably doesn't have much bearing.

73 de KE4QOK  
Bob

\* SLMR 2.1a \* 186,000 miles/sec: Not just a good idea, It's the LAW.